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10/054,038	11/12/2001	Sunao Takatori	2222.6080000	1387

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EXAMINER
HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
2419	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/054,038	TAKATORI ET AL.
	Examiner	Art Unit	
	VENKATESH HALIYUR	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *21 January 2009*.

2a) ☐ This action is FINAL.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-19 (2-3,6,11,17 are canceled)* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1,4-5,7-10,12-16,18-19* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *12 November 2001* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All   b) ☐ Some * c) ☐ None of:

         1. ☒ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date *08/04/2008*.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 01/29/2009 has been considered. The amendments necessitated new ground(s) of rejection in view of Alfano and newly found references. Therefore the rejection communicated via previous office action has been withdrawn. Rejection follows.

2.   Claims 1-19 are pending in the application. Claim 2-3, 6, 11, 17 are canceled.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1,4,7-9,12-13,15-16,18 are rejected under 35 U.S.C.103(a) as being unpatentable over Alfano et al [US Pat: 6,094,423] in view of Golestani [US Pat: 6,965,943].

Regarding claims 1, 4, Alfano et al in the invention of "Wireless Protocol Method and Apparatus Supporting Transaction Requests With Variable Length Responses" disclosed a device (Fig 6) comprising:

a transmitter (XMTR, item 51 of Fig 6) configured to transmit a query to a destination communication device corresponding to packet units that are recognizable by the destination communication device (server, col 5, lines 45-55).

a receiver (RCVR, item 54 of Fig 6) to receive information from the destination communication device (server) corresponding to packet units that are recognizable by the destination communication device in response to the query (col 5, lines 56-67, col 3, lines 25-27).

a determining device (processor, item 58 of Fig 6) configured to select a most appropriate packet unit (MTU, Maximum transfer unit size) for transmission data to be packetized that minimizes the amount of transmission data (col 5, lines 45-67, col 6, lines 1-16), the most appropriate packet unit being selected according to the received information corresponding to the packet units that are recognizable by the destination communication device (server response indicates the packet size, col 6, lines 17-23) ; and a packet generator (processor) configured to packetize the transmission data based on a packet unit determined by said determining device (processor segments packets if packet size exceeds MTU, col 6, lines 24-54, Fig 7) configured to store information with respect to the packet units that are recognizable by the destination device (col 5, lines 5-17) and further disclosed a storage device (RAM, item 66 of Fig 6) configured to store information with respect to the packet units that are recognizable

by the destination communication device (col 5, lines 62-67, col 6, lines 1-4). Alfano disclosed the feature of a determining device configured to select a most appropriate packet unit for transmission data to be packetized which inherently suggest that transmitting varying size data packets correspondingly changes the amount of transmission data or the transmission rate, however, Golestani disclosed a method wherein a receiving unit (apparatus) requests the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side (col 3, lines 12-35). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving unit requesting the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side as taught Golestani in the system of Alfano et al to include the feature of transmitting the most appropriate packet unit being selected according to the received information corresponding to the packet units that are recognizable by the destination communication device. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet units to achieve an optimal transmission rate for error and congestion control.

Regarding claims 7, 9, Alfano et al disclosed a method for determining packet units for transmission data to be packetized and transmitted from a communication terminal device (communication device, item 50, Fig 6) to a destination communication device (server), the method comprising:

transmitting (XMTR, item 51 of Fig 6) a query to the destination communication

device corresponding to packet units that are recognizable by the destination

communication device (server, col 5, lines 45-63).

receiving information (RCVR, item 54 of Fig 6) from the destination

communication device (server) corresponding to packet units that are recognizable by

the destination communication device in response to the query (col 5, lines 56-67, col

6, lines 1-16, col 3, lines 25-27).

selecting a packet unit to minimize the amount of transmission data according to

the received information corresponding to the packet units that are recognizable by the

destination device (server response indicates the packet size, col 6, lines 17-23)

and packetizing said transmission data according to the packet unit selected

(processor segments packets if packet size exceeds MTU, col 6, lines 24-54) and

determining whether the information regarding packet units recognizable by said

destination communication device (col 5, lines 62-67, col 6, lines 1-4) is stored in a

memory of said communication terminal device (RAM, item 66 of Fig 6, col 6, lines 5-

23, col 5, lines 26-29, Fig 7). Alfano disclosed the feature of a determining device

configured to select a most appropriate packet unit for transmission data to be

packetized which inherently suggest that transmitting varying size data packets

correspondingly changes the amount of transmission data or the transmission rate,

however, Golestani disclosed a method wherein a receiving unit (apparatus) requests

the transmitting side to transmit data at a transmission rate that is recognizable by the

receiving side (col 3, lines 12-35, Fig 4). Therefore it would have been obvious for one

of the ordinary skill in the art at the time the invention was made to use the method of

receiving unit requesting the transmitting side to transmit data at a transmission rate

that is recognizable by the receiving side as taught Golestani in the system of Alfano et

al to include the feature of transmitting the most appropriate packet unit being selected

according to the received information corresponding to the packet units that are

recognizable by the destination communication device. One is motivated in order to

provide a mechanism for the receiving side to request transmitting side to transmit data

packet units to achieve an optimal transmission rate for error and congestion control.

Regarding claim 8, 13 Alfano et al disclosed transmitting said packetized

transmission data from said communication terminal device to said destination

communication device (col 5, lines 45-51).

Regarding claims 12,15, Alfano et al disclosed a computer program product

comprising a tangible computer readable medium having computer executable

instructions recorded thereon for enabling a processor to determine packet units for

transmission data to be packetized and transmitted from a communication terminal

device to a destination communication device (items 11 and 14, Fig 1), comprising:

instructions for transmitting (XMTR, item 51 of Fig 6) a query to the destination

communication device corresponding to packet units that are recognizable by the

destination communication device (server, col 5, lines 45-55).

instructions for receiving information (RCVR, item 54 of Fig 6) from the

destination communication device (server) corresponding to packet units that are

recognizable by the destination communication device in response to the query (col 5, lines 56-67, col 3, lines 25-27).

Instructions for selecting a packet unit to minimize the amount of transmission data according to the received information corresponding to the packet units that are recognizable by the destination device (server response indicates the packet size, col 6, lines 17-23) and instructions for packetizing said transmission data according to the packet unit selected (processor segments packets if packet size exceeds MTU, col 6, lines 24-54) and instructions for determining whether the information regarding packet units recognizable by said destination communication device (col 5, lines 62-67, col 6, lines 1-4) is stored in a memory of said communication terminal device (RAM, item 66 of Fig 6, col 6, lines 5-23, col 5, lines 26-29, Fig 7). Alfano disclosed the feature of a determining device configured to select a most appropriate packet unit for transmission data to be packetized which inherently suggest that transmitting varying size data packets correspondingly changes the amount of transmission data or the transmission rate, however, Golestani disclosed a method wherein a receiving unit (apparatus) requests the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side (col 3, lines 12-35,Fig 4). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving unit requesting the transmitting side to transmit data at a transmission rate that is recognizable by the receiving side as taught Golestani in the system of Alfano et al to include the feature of transmitting the most appropriate packet unit being selected according to the received information corresponding to the packet

units that are recognizable by the destination communication device. One is motivated

in order to provide a mechanism for the receiving side to request transmitting side to

transmit data packet units to achieve an optimal transmission rate for error and

congestion control.

Regarding claims 16, 18, Alfano et al disclosed a computer program product

comprising a tangible computer readable storage medium having computer program

logic recorded thereon for enabling a processor to determine packet units for

transmission data to be packetized and transmitted from a communication terminal

device (communication device, item 50, Fig 6) to a destination communication device

(server), the computer program logic (Figs 6/7) comprising:

transmitting means for enabling the processor to transmit (XMTR, item 51 of Fig

6) a query to the destination communication device corresponding to packet units that

are recognizable by the destination communication device (server, col 5, lines 45-55).

receiving means for enabling the processor to receive (RCVR, item 54 of Fig 6)

from the destination communication device (server) corresponding to packet units that

are recognizable by the destination communication device in response to the query (col

5, lines 56-67, col 3, lines 25-27).

selecting means for enabling the processor to select a packet unit to minimize

the amount of transmission data according to the received information corresponding to

the packet units that are recognizable by the destination device (server response

indicates the packet size, col 6, lines 17-23) and packetizing means for enabling the

processor to pocketsize the transmission data according to the packet unit selected

(processor segments packets if packet size exceeds MTU, col 6, lines 24-56) and

storing means for enabling the processor to store information with respect to the packet

units that are recognizable by the destination communication device (RAM, item 66 of

Fig 6, col 6, lines 5-23, col 5, lines 26-29, Fig 7). Alfano disclosed the feature of a

determining device configured to select a most appropriate packet unit for transmission

data to be packetized which inherently suggest that transmitting varying size data

packets correspondingly changes the amount of transmission data or the transmission

rate, however, Golestani disclosed a method wherein a receiving unit (apparatus)

requests the transmitting side to transmit data at a transmission rate that is recognizable

by the receiving side (col 3, lines 12-35, Fig 4). Therefore it would have been obvious

for one of the ordinary skill in the art at the time the invention was made to use the

method of receiving unit requesting the transmitting side to transmit data at a

transmission rate that is recognizable by the receiving side as taught Golestani in the

system of Alfano et al to include the feature of transmitting the most appropriate packet

unit being selected according to the received information corresponding to the packet

units that are recognizable by the destination communication device. One is motivated

in order to provide a mechanism for the receiving side to request transmitting side to

transmit data packet units to achieve an optimal transmission rate for error and

congestion control.

5.   Claims 5,10,14,19 are rejected under 35 U.S.C.103(a) as being unpatentable

over Alfano et al [US Pat: 6,094,423] and Golestani [US Pat: 6,965,943] further in view

of Blackwell et al.[US Pat: 6,085,253].

Regarding claims 5, Alfano et al disclosed that if a retransmission request occurs while packets are being transmitted, the determining device is configured to determine a smaller appropriate packet unit (segment data packets in smaller units, col 5, lines 45-67, , item 112 of Fig 7) than the previously determined appropriate packet unit transmitting data subsequent to the retransmission request according a smaller packet (increase or decrease the packet size based on the server request in subsequent transmissions, col 6, lines 1-23, Fig 7). Golestani disclosed changing the data rate at the transmitter as requested and recognizable by the receiver transmission rate for error and congestion control mechanism (col 10, lines 54-66), but both Alfano and Golestani fail to positively disclose the feature of retransmission request occurs while packets are being transmitted. However, Blackwell et al disclosed a method for the receiver requesting the retransmission of packets while packets are being transmitted in a bidirectional data communication system (col 5, lines 60-67, col 6, lines 1-5, Fig 6). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method for the receiver requesting the retransmission of packets while packets are being transmitted in a bidirectional data communication system as taught by Blackwell et al in the system of Alfano et al as modified by Golestani to include the feature wherein if a retransmission request occurs while packets are being transmitted, the determining device is configured to determine a smaller appropriate packet unit than the previously determined appropriate packet unit transmitting data subsequent to the retransmission request according a smaller packet. One is motivated as such in order to provide an efficient retransmission mechanism at

the transmitter to process retransmission requests from the receiver to minimize

retransmission delays and for better congestion control in the communication system.

Regarding claim 10, Alfano et al disclosed generating a retransmission request

after said transmitting step requesting a different packet unit size (segment data

packets in smaller units, col 5, lines 45-67, , item 112 of Fig 7) repacketizing said

transmission data into a different packet unit size according to said retransmission

request; and transmitting said repacketized transmission data to said destination

communication device (segment data packets in smaller units, col 6, lines 1-23,

item 112 of Fig 7). Golestani disclosed changing the data rate at the transmitter as

requested and recognizable by the receiver transmission rate for error and congestion

control mechanism (col 10, lines 54-66), but both Alfano and Golestani fail to positively

disclose the feature of retransmission request occurs while packets are being

transmitted. However, Blackwell et al disclosed a method for the receiver requesting

the retransmission of packets while packets are being transmitted in a bidirectional data

communication system (col 5, lines 60-67, col 6, lines 1-5, Fig 6). Therefore it would

have been obvious for one of the ordinary skill in the art at the time the invention was

made to use the method for the receiver requesting the retransmission of packets while

packets are being transmitted in a bidirectional data communication system as taught

by Blackwell et al in the system of Alfano et al as modified by Golestani to include the

feature wherein if a retransmission request occurs while packets are being transmitted,

the determining device is configured to determine a smaller appropriate packet unit than

the previously determined appropriate packet unit transmitting data subsequent to the

retransmission request according a smaller packet. One is motivated as such in order to

provide an efficient retransmission mechanism at the transmitter to process

retransmission requests from the receiver to minimize retransmission delays and for

better congestion control in the communication system.

Regarding claim 14, Alfano et al disclosed instructions for generating a

retransmission request after said transmitting step requesting a different packet unit size

(segment data packets in smaller units, col 5, lines 45-67, , item 112 of Fig 7);

instructions for repacketizing said transmission data into a different packet unit size

according to said retransmission request; and instructions for transmitting said

repacketized transmission data to said destination communication device (col 6, lines

1-23, item 112 of Fig 7). Golestani disclosed changing the data rate at the transmitter

as requested and recognizable by the receiver transmission rate for error and

congestion control mechanism (col 10, lines 54-66), but both Alfano and Golestani fail

to positively disclose the feature of retransmission request occurs while packets are

being transmitted. However, Blackwell et al disclosed a method for the receiver

requesting the retransmission of packets while packets are being transmitted in a

bidirectional data communication system (col 5, lines 60-67, col 6, lines 1-5, Fig 6).

Therefore it would have been obvious for one of the ordinary skill in the art at the time

the invention was made to use the method for the receiver requesting the

retransmission of packets while packets are being transmitted in a bidirectional data

communication system as taught by Blackwell et al in the system of Alfano et al as

modified by Golestani to include the feature wherein if a retransmission request occurs

while packets are being transmitted, the determining device is configured to determine a

smaller appropriate packet unit than the previously determined appropriate packet unit

transmitting data subsequent to the retransmission request according a smaller packet.

One is motivated as such in order to provide an efficient retransmission mechanism at

the transmitter to process retransmission requests from the receiver to minimize

retransmission delays and for better congestion control in the communication system.

Regarding claim 19, Alfano et al disclosed wherein if a retransmission request

occurs while packets are being transmitted, the determining device is configured to

determine a smaller appropriate packet unit (segment data packets in smaller units,

col 5, lines 45-67, , item 112 of Fig 7) than the previously determined appropriate

packet unit transmitting data subsequent to the retransmission request according a

smaller packet (increase or decrease the packet size based on the server request

in subsequent transmissions, col 6, lines 1-23). Golestani disclosed changing the

data rate at the transmitter as requested and recognizable by the receiver transmission

rate for error and congestion control mechanism (col 10, lines 54-66), but both Alfano

and Golestani fail to positively disclose the feature of retransmission request occurs

while packets are being transmitted. However, Blackwell et al disclosed a method for

the receiver requesting the retransmission of packets while packets are being

transmitted in a bidirectional data communication system (col 5, lines 60-67, col 6,

lines 1-5, Fig 6). Therefore it would have been obvious for one of the ordinary skill in

the art at the time the invention was made to use the method for the receiver requesting

the retransmission of packets while packets are being transmitted in a bidirectional data

communication system as taught by Blackwell et al in the system of Alfano et al as

modified by Golestani to include the feature wherein if a retransmission request occurs

while packets are being transmitted, the determining device is configured to determine a

smaller appropriate packet unit than the previously determined appropriate packet unit

transmitting data subsequent to the retransmission request according a smaller packet.

One is motivated as such in order to provide an efficient retransmission mechanism at

the transmitter to process retransmission requests from the receiver to minimize

retransmission delays and for better congestion control in the communication system.

Response to Arguments

6.   Applicant's argument, see remarks filed on 01/29/2009 for claims 12-16,

18-19 have been fully considered and are persuasive. However, a new ground(s) of

rejection has been made in view of Alfano and a newly found references in this office

action and therefore rejections communicated via previous office action has been

withdrawn.

The amendments to claims 12-16,18-19 overcomes the rejections under 35 USC

112 1st and 2nd paragraph for claims 12-16, 18-19 communicated via previous office

action has been withdrawn.

With respect to applicant's arguments for claims 1, 7, 12,16, that Alfano fail to

teach or suggest the limitation of "a determining device configured to select a most

appropriate packet unit for transmission data to be packetized that minimizes the

amount of transmission data" and "selecting a packet unit, recognizable by the

destination communication device to minimize an amount of transmission data for the

packet unit based on data communication rates" as recited in claims 1, 7, 12, and 16,

However the examiner respectfully disagrees and points applicant's to col 5, lines 45-

67, col 6, lines 1-54, Fig 6 where Alfano disclosed a method for mobile device (device)

processor (determining device) requesting the server to segment and send the data

packets over a connection oriented connection if the data packet size is more than the

maximum transfer unit size (MTU) indicated by the mobile device. Therefore Alfano

disclosed the feature of a determining device configured to select a most appropriate

packet unit for transmission data to be packetized that minimizes the amount of

transmission data, However, the examiner agrees that Alfano did not positively disclose

the feature of selecting a packet unit, recognizable by the destination communication

device to minimize an amount of transmission data for the packet unit based on data

communication rates even though Alfano's disclosures inherently suggest that

transmitting varying size data packets correspondingly changes the amount of

transmission data or the transmission rate.

Conclusion

7.   Any inquiry concerning this communication or earlier communications should be

directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general

nature or relating to the status of this application or proceeding should be directed to the

group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

8.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2419

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2419